

# **WINEGARD®**

## **In-Motion**

### **Digital Satellite Mobile Antenna for Two Receivers**

**Models MV3500T (White Dome)**

**MV3535T (Black Dome)**

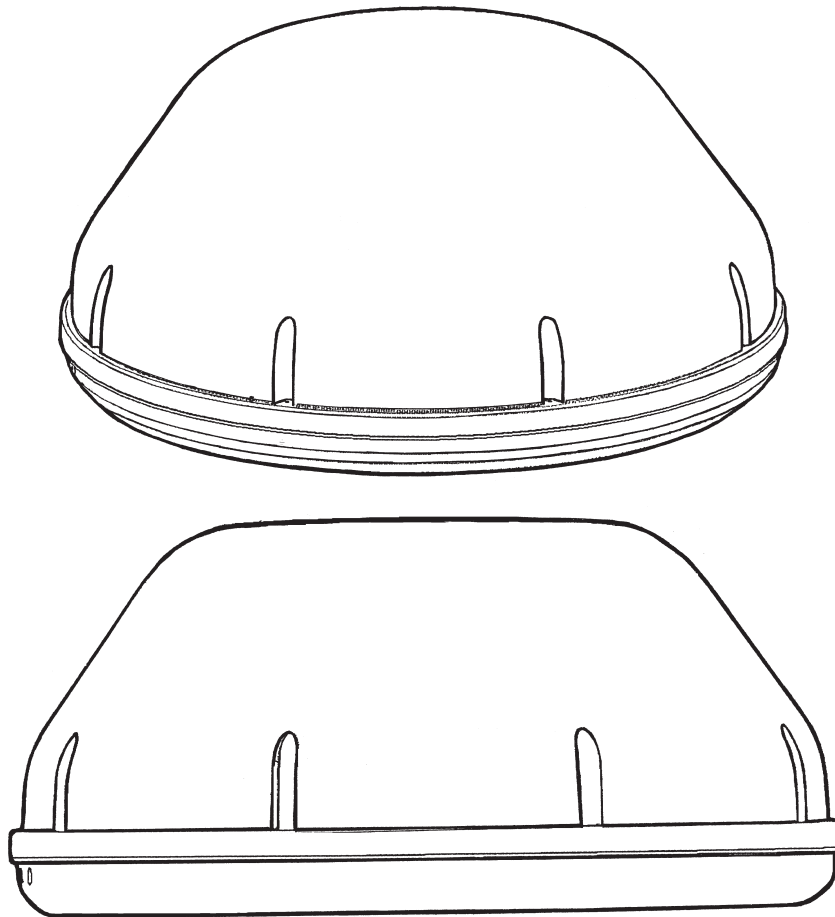
**WI3535T (Black Dome)**

**MVT-35W (White Dome, OEM)**

**MVT-35B (Black Dome, OEM)**

### **OPERATION MANUAL**

Made in the U.S.A. U.S. Patent Nos. 6,023,247; 6,188,300



APPLY SERIAL NUMBER  
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# Introduction/How Does Digital Satellite TV Work?

**About this manual** —We hope this manual will provide clear instructions to install and operate MV3500T. Two symbols have been used —



Indicates caution should be taken!



Indicates suggestions to make processes easier for you.

## Introduction

Congratulations! You have purchased one of Winegard's latest developments in the mobile satellite reception product line —the Movin' View™. This system, used with your digital satellite receiver, will deliver the best reception possible.

## How Does Digital Satellite TV Work?

Satellite programming originates from an "uplink" facility on Earth — the facility receives many signals from different sources, combines the signals digitally and transmits to the satellites. The satellites (22,300 miles above Earth) receive the uplink signal, amplify it and then transmit it back to earth in the Ku frequency band. This signal is concentrated and reflected to the LNBF\* located at the "focal point" of the dish. The LNBF amplifies and converts the signal to the 950 to 1450 MHz range. The signal is then passed through a coaxial cable to the receiver where individual channel selection and processing take place.

\* Low Noise Block Converter Feed

For Programming information call:

**DISH NETWORK® - 1-800-333-DISH (1-800-333-3474)**

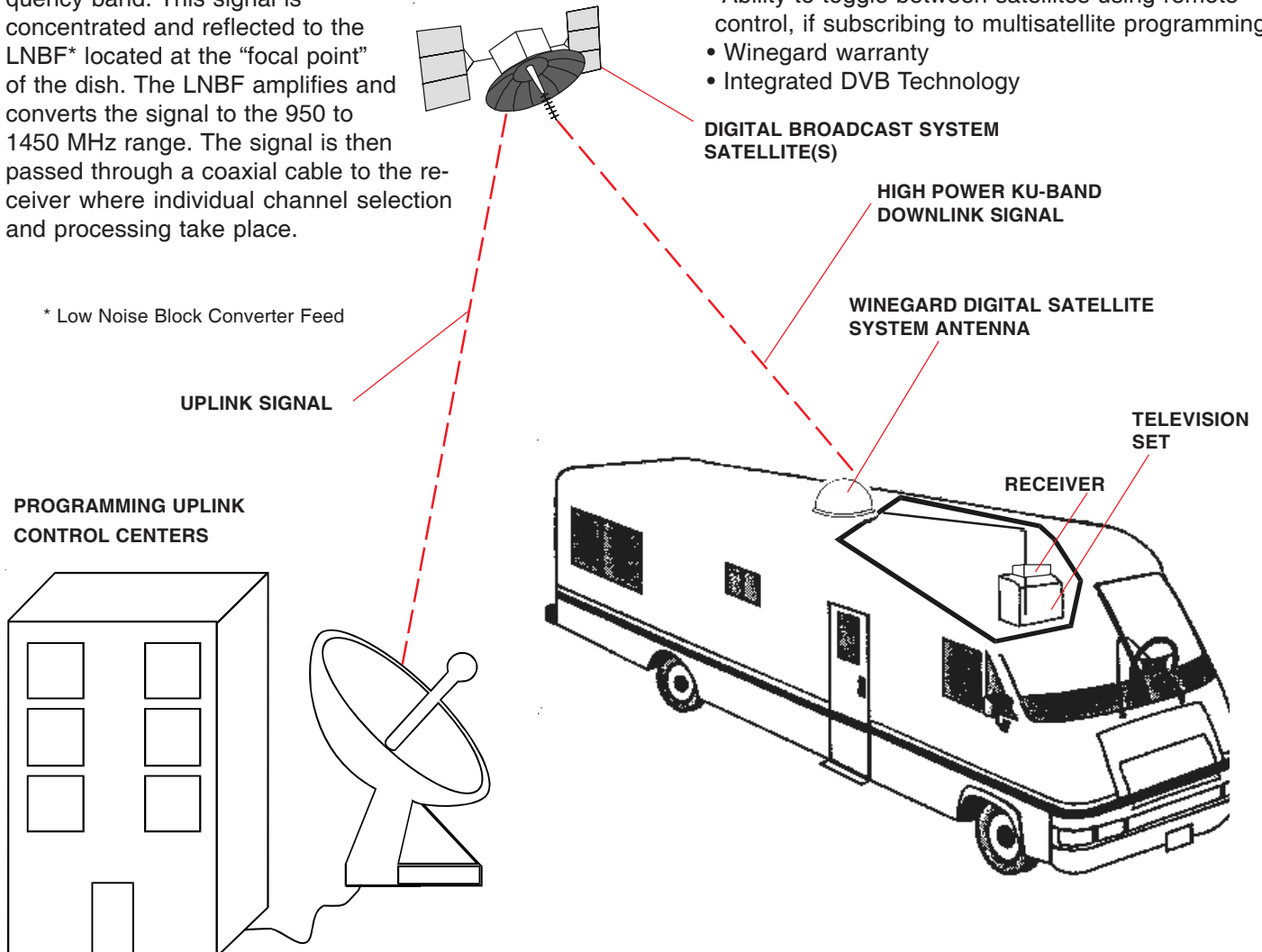
**DIRECTV® - 1-800-DIRECTV (1-800-347-3288)**

**EXPRESSVU® - 1-888-SKYDISH (1-888-759-3474)**

*Your new Winegard RV Digital Satellite System is an easy-to-use satellite TV reception system. Because it mounts on the top of your recreational vehicle, it goes where you go and provides quality reception of digital satellite signals. Check with your program provider for exact coverage area.*

### MV3500T features:

- Two receiver compatible
- GPS Technology
- Easy "one-button" operation
- Compatible with most digital satellite receivers
- Ability to toggle between satellites using remote control, if subscribing to multisatellite programming
- Winegard warranty
- Integrated DVB Technology



DIRECTV® is an official trademark of DIRECTV, a unit of GM Hughes Electronics Corporation.  
DISH Network® is an official trademark of EchoStar Communications Corporation.

# Quick Reference Guide

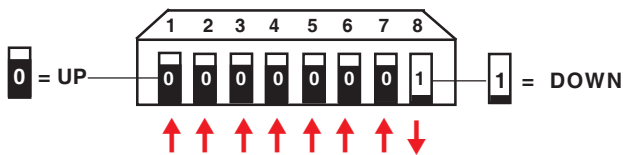
## NOTICE!

This model is PRESET for DIRECTV® receivers.

If you have a DISH Network® or ExpressVu® (Canada) receiver, you must change the numbered switches inside the dome.

### TO CHANGE SWITCHES INSIDE DOME —

1. Remove screws holding dome to base and remove dome. Place dome in safe spot to avoid damage. Switches will be set at **101°** for **DIRECTV®**. You may be changing these switches.



		(#1 represents Switch DOWN; #0 represents Switch up)							
Sat. Rcvr.	Mt. Option	1	2	3	4	5	6	7	8
DIRECTV (FACTORY PRESET)		0	0	0	0	0	0	0	1
DISH NETWORK		0	0	0	1	0	0	1	1
ExpressVu		0	1	0	1	1	0	1	1

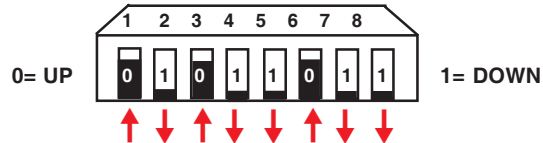
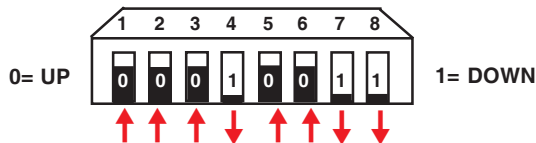
**SWITCH SETTINGS  
SHOWN BELOW**

0 = UP    1 = DOWN

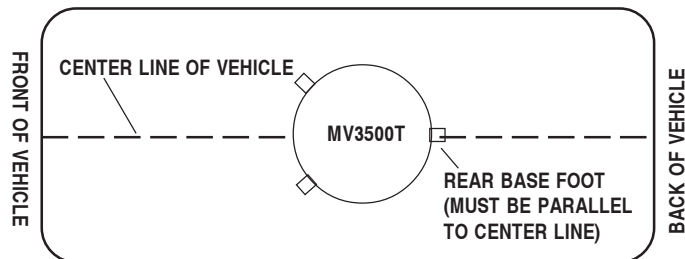
2. Determine which programming you will be using. This will determine how you set your switches.

For **DISH Network** set switches to **119°**.

For **ExpressVu®**, set switches to **091°**.



**MOUNTING**



**DirecTV®** receivers must be set to the two satellite, oval dish setting. Refer to your receiver manual.

**DISH Network** receivers must either have the check switch set for SW42 or unknown, no satellite found. See page 5.

The satellite system has two modes of operation; **Tracking Mode** and **Sleep Mode**. When you first turn the unit on, it enters **Tracking Mode**. In this mode the unit will search and actively follow the satellite as the vehicle travels. Tracking mode ends when the unit has successfully finished its search and the vehicle has not moved for six minutes.

**Sleep Mode**, this is the unit at rest mode. During Sleep mode the dish will toggle between primary and secondary satellites as you change channels with the remote. The unit enters Sleep mode about six minutes after a successful search if stationary, or six minutes after the vehicle stops moving.

## Operation

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1. Turn on receiver and television set. **The MV3500T antenna must be connected to a receiver that is plugged into 120 VAC.**

2. **Verify that you are getting the receiver's menu screens** on the television. These screens are available with or without the dish finding the signal. See page 6 for details of receiver set up.

3. **Turn the power switch on for the the MV3500T antenna.** The dish should start moving, making one or two revolutions before it stops to acquire GPS. This can take a few moments or up to 10-15 minutes. **Normal operation will be less than a minute.**



You may be Stationary or In-Motion during power up.



If powering up while in-motion, you must be traveling at a minimum of 10 mph in a straight line.

4. **Once the unit has acquired GPS, the dish will begin its search.** The dish will pause on the signal long enough to determine which satellite it has found. If it moves off the signal, it is in an effort to verify the signal and it should return to the signal shortly.

5. After the unit has verified that it has the correct satellite, it will continue to track the signal.

6. If the vehicle does not move for six minutes, the unit will toggle to it's alternate satellite then toggle back to the primary satellite and go to sleep. If vehicle begins movement in straight line at 10 mph, the unit will resume tracking mode. See below for details of modes of operation.

7. **If you do not have signal, see *Troubleshooting*, p.6.**

### Modes of Operation:

The MV3500T satellite antenna has the two modes of operation: **Tracking Mode** and **Sleep Mode**. Whether stationary or In-Motion during satellite signal acquisition, the unit enters **Tracking Mode**. In this mode, the unit will actively follow the satellite as the vehicle travels, even if the vehicle is stationary for the first six minutes. Tracking mode ends when the MV3500T antenna has successfully finished its search and the vehicle has not moved for six (6) minutes. Your MV3500T antenna will resume tracking mode if it detects movement in a straight line at 10 mph or more.

In **Sleep Mode**, the unit at rest. The antenna enters **Sleep Mode** six (6) minutes after a successful search if stationary, or six (6) minutes after the vehicle stops moving.

### Recovery From Signal Interruption:

**While traveling, the signal will be interrupted when the line of sight to the satellite is blocked.** Signal is acquired again after line of sight is restored. If signal is interrupted for more than 15 seconds, the system automatically enters the search routine. **The length of time for the TV picture to recover depends on the receiver model you are using.**



You must drive in a straight line at 10 mph or more when starting to operate in motion.

### Toggle In-Motion:

Your MV3500T satellite antenna will automatically toggle between the primary and alternate satellite for your service provider. For toggling In-Motion, you **may** notice a slight delay in satellite switching which could cause a loss in picture. This is normal, picture loss should be no longer than three seconds. **If the alternate satellite the MV3500T is trying to toggle to is blocked for more than 25 seconds, the system automatically enters the search routine.**



Use your on-screen guide to locate your channel rather than "channel surfing". This will result in smoother operation.

## To toggle between satellites when subscribing to multi-satellite programming—

The MV3500T will toggle between the primary and secondary satellites for either DISH Network or DIRECTV. Both have programming on more than one satellite. When a channel is selected on the remote control and is not on the satellite currently selected, the unit will automatically toggle to the correct satellite. **NOTE: The MV3500T will toggle while stationary or In-Motion.**

### DIRECTV programming

1. DIRECTV receivers must be set for oval dish 2 sat selection to enable toggling between primary 101°W satellite and alternate 119°W satellite only. (Consult receiver manual for procedure.) After receiver is set for the correct dish selection, when you request a channel located on a different satellite, the unit will automatically toggle to that satellite.

### DISH Network programming (DISH 500)

DISH Network receivers must have the “SW42” switch installed in order to toggle between the primary 119° satellite and the alternate 110° satellite. (Consult your receiver manual for the procedure to reach the “check switch” menu.)

**NOTE: This “SW42 Switch” is a DISH Network® receiver setting, NOT a physical part.**

**To install the “SW42” switch:**

1. Before turning on your MV3500T system, make sure that your satellite receiver and television are turned on and your receiver is on the “point dish” menu. (Consult your owner’s manual to reach this menu.)
2. While the vehicle is stationary, turn on the MV3500T system and wait for signal acquisition on satellite 119°.
3. After signal is acquired, the system will continuously track the signal for approximately six minutes. At the end of six minutes, the unit will enter sleep mode. You now have six minutes to complete Check Switch test. Consult your receiver manual for instructions on running the test. Be sure that Superdish and Alternate are unchecked if applicable. Onscreen options may vary by receiver.
4. During the Check Switch Test, the receiver will begin checking the switch by toggling between satellites. When this is completed, SW42 will appear on the screen. It will be at the top of the screen, satellite designations will be below, showing odd and even transponders. See illustration.

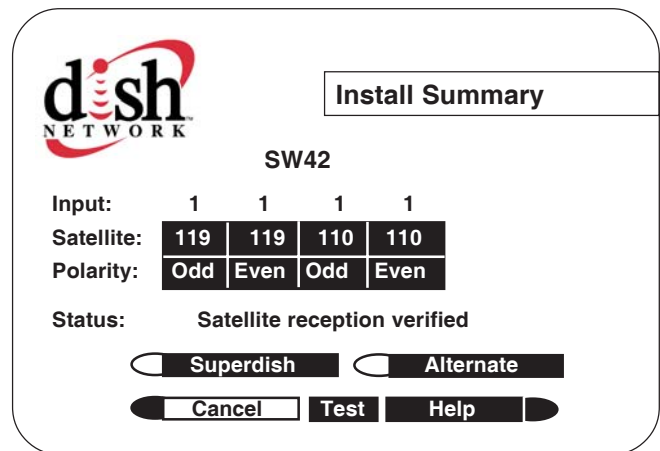
**If a switch other than SW42 appears, or you have an X in one of the boxes below the satellites, repeat Check Switch Steps.**

5. Your system is now set up to toggle between satellites. It will automatically move to the correct satellite when a channel is selected with your remote control.

**NOTE: Once these steps are completed, you won’t have to perform this test again, unless Check Switch was performed on another satellite dish, such as a home dish.**



**Toggle:** Your Winegard automatic satellite dish will move from the primary to the alternate satellite in order to receive multi-satellite programming.



Check Switch screen display

**NOTE: Be sure the “Superdish” and “Alternate” boxes ARE NOT checked.**

# Troubleshooting

## PROBLEM

## SOLUTION

The MV3500T does not attempt to find a satellite or it never moves.

1. Check your Power switch to verify that it is in the **ON** position.
2. Check +12 V wires at unit to verify power. Check fuse on electronics.

The dish never stops on any of the signals that it sees.

1. Make sure that your receiver is set up correctly.  
For DISH Network, the check switch should read either "**Unknown**" or "**SW42**".  
For DirecTV the receiver should be set for a **Two Satellite Oval Dish**.

With DIRECTV, the dish will find the alternate satellite but it never finds the primary satellite.

Make sure that the Switches on the Electronics Control Box are set for DirecTV. See page 3. These switches are found under the dome, inside the Electronics Control Box.

I am not getting all the DISH Network channels I subscribed to.

1. Go to the check switch menu in receiver. Make sure that it's set for SW42 and lists both even and odd transponders on satellites 110° and 119°.

The MV3500T never sees any signals, it just keeps searching.

1. Rain, Snow or excessive Dew on the dome can interrupt the signal. Snow and Dew can be brushed off the dome. If Heavy rain or Snow fall is blocking the signal, it may be necessary to wait until the weather clears.
2. Check to see if the Southern sky is clear. Trees, Buildings, Large signs or an Overpass can block the signal. Find an area where you can be sure that this is not the problem and try again.
3. Make sure the receiver has power and the satellite dish is connected to the "Sat In".

I have switched satellite service providers. How do I set my dish for my new provider?

You will need to remove the dome, and set switches to correct provider. See page 4.



### Features and specifications

- One button operation.
  - Dual receiver capable.
  - Depending on receiver type, you can access satellites 119°, 110°, 101° or 92°.
  - No user input required.
  - No data port required for DISH Network®, DIRECTV® or ExpressVu.
  - Elevation range 20° to 74.5°; azimuth +360° (0-720°)
  - 30' power cable and 30' coaxial cable included.
  - Dome UV protected.
  - Compact size —  
32" diameter, 15-3/4" height  
Weight of unit - 28 lbs.  
Shipping weight - 41 lbs.
  - Operating temperature  
-13°F to +140°F
  - Specifications for max amperage 3.0A
  - Specifications for unit operating voltage. -10.5 - 13.8V
  - Specifications for supply voltage. 12 - 13.8V
- Winegard supplies 30' of 16 AWG wire for connecting the unit. When making connections or adding wire, Winegard recommends using 16 AWG stranded wire or larger for connection up to 60 feet. When making connections longer than 60 feet, insure that specifications for unit operating voltage are met by measuring voltage at the unit.

### WINEGARD MOBILE PRODUCTS LIMITED WARRANTY (2 YEARS PARTS; 1 YEAR LABOR)

Winegard Company warrants this product against defects in materials or workmanship for a period of two (2) years from the date of original purchase. During year one (1) of such warranty, Winegard Company will also pay authorized labor costs to an authorized Winegard dealer to repair or replace defective products. No warranty claim will be honored unless at the time the claim is made, Customer presents proof of purchase to an authorized Winegard dealer (to locate the nearest authorized Winegard dealer, contact Winegard Company, 3000 Kirkwood Street, Burlington, Iowa 52601, Telephone 319-754-0600 or visit [www.winegard.com](http://www.winegard.com)). Customer must provide proof of purchase with a dated sales receipt for the Winegard product to verify the product is under warranty. If the date of purchase cannot be verified, the warranty period shall be considered to begin thirty (30) days after the date of manufacture.

If a defect in material or workmanship is discovered, Customer may take the product to an authorized Winegard dealer for service. Customer must provide proof of purchase to verify the product is under warranty. If the product is brought to an authorized Winegard dealer for service prior to expiration of year one (1) of the warranty period and a defect in material or workmanship is verified by Winegard Technical Services, Winegard Company will cover the Winegard dealer's labor charges for warranty service. The Winegard dealer must contact Winegard Technical Services in advance for pre-approval of the service. Approval of the service is at the sole discretion of Winegard Company.

Alternatively, Customer may ship the product prepaid to Winegard Technical Services (located at 3000 Kirkwood Street, Burlington, Iowa 52601, Telephone 319-754-0600). Customer must return the product along with a brief description of the problem and provide Winegard Technical Services with Customer's name, address, and phone number. Customer must also provide proof of purchase to verify the product is under warranty. If the product is returned before the expiration of the warranty period, Winegard Company will (at its option) either repair or replace the product.

This Limited Warranty does not apply if the product has been damaged, deteriorates, malfunctions or fails from: improper installation, misuse, abuse, neglect, accident, tampering, modification of the product as originally manufactured by Winegard in any manner whatsoever, removing or defacing any serial number, usage not in accordance with product instructions or acts of nature such as damage caused by wind, lightning, ice or corrosive environments such as salt spray and acid rain.

### RETURN AUTHORIZATION POLICY

A Return Material Authorization (RMA) is required prior to returning any product to Winegard Company or Winegard Warranty Services under this warranty policy. Please call our Technical Services Department at (800) 788-4417 or send an e-mail to [warranty@winegard.com](mailto:warranty@winegard.com) to obtain the RMA number. Please furnish the date of purchase when requesting an RMA number. Enclose the product in a prepaid package and write the RMA number in large, clear letters on the outside of the package. To avoid confusion or misunderstanding, a shipment(s) without an RMA number(s) or an unauthorized return(s) will be refused and returned to Customer freight collect.

WINEGARD COMPANY DOES NOT ASSUME ANY LIABILITIES FOR ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, MADE BY ANY OTHER PERSON.

ALL OTHER WARRANTIES WHETHER EXPRESS, IMPLIED OR STATUTORY INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY ARE LIMITED TO THE TWO YEAR PERIOD OF THIS WARRANTY.

In states that do not allow limitations on implied warranties, or the exclusion of limitation of incidental or consequential damages, the above limitations or exclusions do not apply.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion of limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty gives Customer specific legal rights. Customer may also have other rights that may vary from state to state.

### SATELLITE RECEIVER WARRANTY:

See manufacturer's limited warranty policy.

